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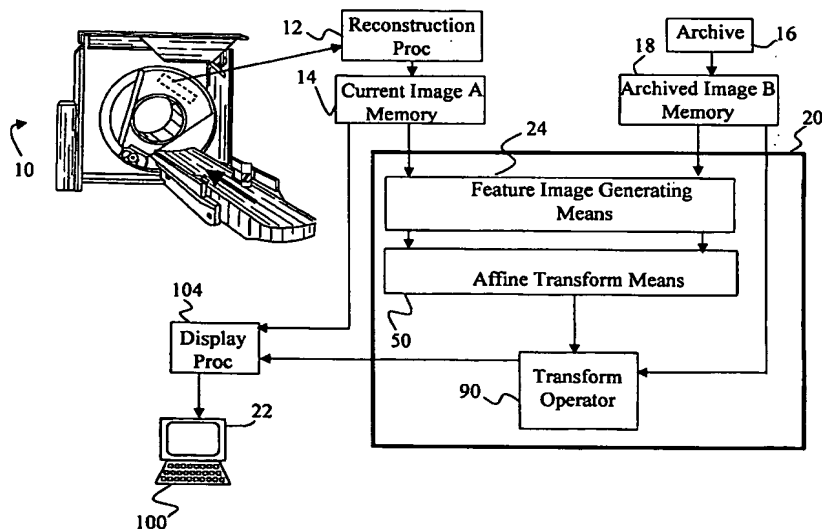
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[Continued on next page]

(54) Title: **AUTOMATIC REGISTRATION OF INTRA-MODALITY MEDICAL VOLUME IMAGES USING AFFINE TRANSFORMATION**



(57) Abstract: A current diagnostic image and an archived diagnostic image of a common region of patient are loaded into a first memory (14) and a second memory (18). The diagnostic images are converted into feature images (24), scaled (40), and normalized (42). An affine transform determining processor (50) generates an affine transform representative of the error between the current and archived images. A transform operator (90) operates on one of the diagnostic images in accordance with the affine transform to bring the two images into registration. A display processor (104) displays corresponding pairs of slices of the registered first and second images on a monitor (22). A stepping processor (102) causes the displayed slice pairs of the registered images to be stepped together in coordination.



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